

REMARKS

Claims 1-3, 5-19, and 21-24 were pending and presented for examination and in this application. In an Office Action dated September 19, 2006, claims 1-3, 5-19, and 21-24 were rejected. Applicants thank Examiner for examination of the claims pending in this application and addresses Examiner's comments below.

Applicants are canceling claims 3 and 22 with this Amendment and Response. Applicants are amending claims 1, 17, 21, and 33 in this Amendment and Response. These changes are believed not to introduce new matter, and their entry is respectfully requested.

In view of the Amendments herein and the Remarks that follow, Applicants respectfully request that Examiner reconsider all outstanding rejections, and withdraw them.

Response to Rejection Under 35 USC 103(a) in View of Schuster and Liu

In the 3rd paragraph of the Office Action, Examiner rejects claims 1-3, 5-19, and 21-24 under 35 USC § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,954,454 ("Schuster") in view of U.S. Patent No. 6,349,096 ("Liu"). This rejection is respectfully traversed.

Claim 1 recites a system using derived voice over data technology to provide analog voice telephony to a client premise comprising the following:

- a derived voice over data termination device located outside of the client premise, said derived voice over data termination device configured to convert between base band signals and derived voice over data signals utilizing derived voice over data technology;
- a connection between the client premise and the derived voice over data termination device, wherein **the connection between the client premise and the derived voice over data termination device is over a twisted wire pair** and carries analog frequencies;
- and

a digital subscriber line access multiplexer coupled between the derived voice over data termination device and one of an ATM switch, a frame relay switch, and a router, the digital subscriber line access multiplexer being configured to multiplex derived voice over data signals to and from the derived voice over data termination device.
(emphasis added)

As claimed, the termination device converts base band signals from the client premise to voice over data signals from the digital subscriber line access multiplexer (DSLAM). The connection between the client premise and the termination device is over a twisted wire pair typically used to provide telephone service. The DSLAM multiplexes voice over data signals to and from the termination device and is coupled to a switch or a router. The claimed invention beneficially allows telephone service to be provided to a client without requiring the client to have a termination device at the client premise.

Claims 17 and 21, as amended, contain language similar to claim 1 and all arguments presented above regarding claim 1 equally apply to claims 17 and 21.

As now recited, the claims are not obvious in view of the combination of Schuster and Liu. Schuster discloses an architecture for a central office including a DSLAM and a router while Liu discloses a system for achieving an optimal routing path for a data link connection. However, neither of these references discloses a connection between the client premise and the derived voice over data termination device. They also do not disclose a DSLAM coupled between the termination device and one of an ATM switch, a frame relay switch, and a router.

More specifically, Schuster does not disclose “a connection between the client premise and the derived voice over data termination device, wherein the connection between the client premise and the derived voice over data termination device is over a twisted wire

pair and carries analog frequencies.” The examiner asserts that the Internet Telephony Gateway (ITG) 150 in Fig. 4 of Schuster discloses a derived voice over data termination device. The examiner cites col. 8, line 62 to col. 9, line 6, which shows signals with analog frequencies switched to the ITG. However, this portion does not disclose a connection between the client premise and the ITG over a twisted wire pair. Though signals may indirectly travel between the ITG and a client premise, such signals must pass through other active network devices (such as Router 140 or CO Switch 120) and therefore the path between the ITG and a client premise does not constitute a connection over a twisted wire pair.

The Examiner additionally cites col. 4 lines 32-34 as disclosing a connection between the client premise and the derived voice over data termination device over a twisted wire pair. However, this portion discloses only a twisted wire pair used in an unspecified part of the Internet Protocol Central Office (IPCO) connected “directly or indirectly through one or more devices, to one or more IP routers.” Thus, the cited portion does not disclose a connection over a twisted wire pair between the client premise and the derived voice over data termination device.

Schuster further does not disclose “a digital subscriber line access multiplexer coupled between the derived voice over data termination device and one of an ATM switch, a frame relay switch, and a router, the digital subscriber line access multiplexer being configured to multiplex derived voice over data signals to and from the derived voice over data termination device.” There is no DSLAM coupled between the ITG 150 and router 140 in Schuster.

Examiner thereafter cites Liu as disclosing an “improved DSLAM” that teaches allowing the DSLAM in Schuster to convert both voice calls and DSL signals into IP packets. However, even the “improved DSLAM” of Liu cannot be coupled between the ITG and the router because the ITG already converts voice calls from the CO switch to data packets which are sent to the router. It would be useless for a DSLAM to also convert voice calls from the CO switch to data packets which are sent to a router. If used as suggested by the Examiner, the DSLAM would be coupled between the CO switch and the router in parallel to the ITG rather than being coupled between the ITG and the router. Additionally, in the configuration suggested by Examiner, neither the router nor the ITG provides DSL signals to the DSLAM whose main purpose is to convert DSL signals to data packets. (Schuster col. 7, line 65 – col. 8, line 3 and Liu col. 6, lines 31-32). Thus, the combination of Schuster and Liu would not render obvious what Applicants claim.

Based on the above amendments and remarks, Applicants respectfully submit that for at least these reasons claims 1, 17, and 21 are patentably distinguishable over the cited references. Therefore, Applicants respectfully request that Examiner reconsider the rejection, and withdraw it. As to the dependent claims, because claims 2 and 5-16 are dependent on claim 1, claims 18-19 are dependent on claim 17, and claims 23-24 are dependent on claim 21, all arguments advanced above with respect to claims 1, 17, and 21 are hereby incorporated so as to apply to these dependent claims.

Conclusion

On the basis of the above remarks and amendments, consideration of this application and the early allowance of all claims herein are requested.

Should the Examiner wish to discuss the above remarks, or if the Examiner believes that for any reason direct contact with the Applicants' representative would help to advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully Submitted,
DAVID E. ROSENSTEIN, et al

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By: /Rajiv P. Patel/

Rajiv P. Patel, Attorney of Record
Registration No. 39,327
FENWICK & WEST LLP
801 California Street
Mountain View, CA 94041
Phone: (650) 335-7607
Fax: (650) 938-5200